ICF
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Date: April 2, 2019

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Ex. 4 CBI
Validator

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Reviewer

Subject: Organic Data Validation (S4VM)
Blades Groundwater
R35443 C0AA0

Overview

This data package consisted of two (2) Field Reagent Blanks (FRBs) and ten (10) sediment samples analyzed for perfluorinated alkyl acid compounds by Liquid Chromatography/Mass Spectrometry (LC/MS). This sample set included a field duplicate sample.

Analyses were performed by Test America Sacramento (TAMC). The samples were submitted to the laboratory directly by the sampling contractor. The laboratory indicated analyses were performed according to a modified EPA Method 537 utilizing a quantitative isotope dilution-internal standard technique.

Data were validated according to the National Functional Guidelines for Organic Superfund Methods Data Review and applicable USEPA Region 3 modifications. The validation report has been assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package received by Region 3 on December 17, 2018.

The laboratory did not provide sufficient data to determine if branched chain isomers of PFOA were included in the reporting of this analyte in field samples. No data were qualified based on this finding.

Summary

No significant data quality outliers or technical deficiencies were identified that would require rejection of sample results. Less significant data quality outliers resulting in estimation of sample results were identified including, but not limited to, surrogate recoveries as detailed below.

Minor Problem

The percent recovery for surrogate 13C2-PFHxA was outside the lower control limit for samples C0AC5 and C0AC6. These samples were not reanalyzed. These samples were non-detect for target analytes. Reporting Limits (RLs) are estimated and have been qualified "UJ".

Notes

Target analytes detected below RLs are estimated and have been qualified "J".

Region 3 policy requires a field reagent blank accompany every sample. This sample delivery group (SDG) only contains two (2) FRBs. This requirement is for purposes of determining the presence of contamination during field operations, as these target analytes are ubiquitous. Detected concentrations for target analytes in all field samples were less than the RLs. No data were qualified based on this outlier.

The laboratory did not provide a narrative for this data package. No data were qualified based on this finding.

Accuracy and precision criteria were met by the laboratory in the initial and continuing calibration verification standard analyses associated with the samples in this SDG.

Method blanks and FRBs associated with the samples in this SDG were free from contamination. FRBs reported a pH value of 7 and were found to be free of residual chlorine at the time of sample preparation by the laboratory. No data were qualified based on these findings.

Percent recoveries and Relative Percent Differences (RPDs) for target analytes in the Low Level Control Sample/Low Level Control Sample Duplicate (LLCS/LLCSD) analyses were within control limits. No data were qualified based on LLCS/LLCSD precision or accuracy.

Percent recoveries for target analytes in the Laboratory Control Sample (LCS) analyses were within control limits. No data were qualified based on LCS accuracy.

Percent recoveries and Relative Percent Differences (RPDs) for target analytes in Matrix Spike/Duplicate Matrix Spike (MS/MSD) analyses of sample C0AA4 were within control limits. No data were qualified based on MS/MSD precision or accuracy.

Results reported for field duplicate pair C0AA8/C0AA9 were comparable. No data were qualified based on field duplicate precision.

The laboratory's batch worksheet noted samples C0AA0, C0AA1, C0AA4, C0AA5, C0AA7, C0AA8 and C0AA9 were observed to be yellow in color. No data was qualified based on this finding.

Manual integrations were performed and identified by the laboratory. A subset of these was evaluated by the reviewer and found to be accurate and consistent. No action was taken by the reviewer based on manual integrations.

Glossary of Organic Data Qualifier Codes

Validation Qualifiers	In order of descending precedence. Only one of these qualifiers may apply to any result.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.

Additional Qualifiers	Additional qualifiers may be combined with other qualifiers.
N	The analyte has been "tentatively identified" or "presumptively" as present.
B	The result is presumed a blank contaminant. This qualifier is used for drinking water samples only.
C	The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS). This qualifier may be added to other qualifiers.
X	The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed. This qualifier may be added to other qualifiers.